



# Women in Engineering Graduate Steering Committee

September 6, 2012

102 Dupont Hall • Newark, DE 19716 • USA  
[www.engr.udel.edu/wie](http://www.engr.udel.edu/wie) • (302) 831-2401

## Our Mission

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*Our goal is to promote and mentor women students in engineering studies at the University of Delaware. We aim to provide tools and resources necessary for their academic and professional success. The WIE Graduate Steering Committee sponsors interaction and mentoring among the women undergraduate students, graduate students, and faculty within the College as well as with external representatives from industry, government agencies, and other academic institutions. The program promotes education and interaction among all members of the College of Engineering with the goal of promoting a healthy institutional climate for the engineering community at UD.*

## Upcoming Events

### *Welcome Pizza Lunch*

WIE's annual pizza lunch to welcome new women graduate students to the college will be hosted on September 7<sup>th</sup> in the CCE Conference Room. Current women graduate students, faculty and post-docs are invited to join in welcoming new women graduate students. 2012-2013 WIE steering committee chair Abbygail Palmer will provide a short welcome and introduction to the program and to WIE at the University of Delaware. We look forward to seeing you there!



## Your 2012 – 2013 Committee

*Chemical & Biomolecular Engineering*Abbygail Palmer  
(Chair)

Melissa St. Amand

*Civil & Environmental Engineering*

Sarah Patterson



Susan Yi

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*"Graduate students,  
mentors and scientists  
fostering success."*

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*Computer Science*

Boyu Zhang



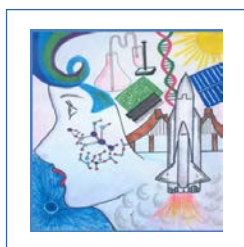
Priscilla Moraes

*Electrical & Computer Engineering*

Luisa Fernanda



Qi (Gill) Wang



<http://www.engr.udel.edu/wie>

Our goal is to promote and mentor graduate women in the College of Engineering at UD. Please do not hesitate to contact us with any questions you might have.

*Materials Science & Engineering*

Yujun Zhong



Xinran Zhou

*Mechanical Engineering*

Jie Fu



Hatice Sas



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**WIE Faculty  
Advisors**

## WIE Calendar of Events

Sep 7 <sup>th</sup> 12 - 1:30pm	<i>Welcome Lunch</i>	CCE Conference Room	Women Graduate Students, Faculty and Post Docs
TBD	<b>Job Panel &amp; Ice Cream Social</b>	CCE Conference Room	Public Welcome
Nov 2 <sup>nd</sup> 12 - 1:30pm	<b>"Get to know your faculty" featuring Dr. Rachel Davidson</b>	CLB 102	Women Graduate Students, Faculty and Post Docs
Nov 30 <sup>th</sup> 3:30 - 5pm	<b>Fall Coffee Break</b>	Colburn 2 <sup>nd</sup> floor lobby	Public Welcome
Feb 8 <sup>th</sup> 3:30 - 5pm	<b>International Student Workshop</b>	CLB 102	International Students Post Docs

## Spotlight: CISTers at UD

CISTers is a University of Delaware network of undergraduate, graduate, and faculty women in technology-driven fields. The group aims to promote women in technology at UD and provide a supportive community by initiating relevant programs, such as mentoring and early/pre-major outreach and informative seminars about career and research opportunities.

The CISTers group at UD was recently selected as one of the 7 organizations to receive the NCWIT (National Center for Women and Information Technology) Symantec Student Seed Fund award, a \$750 award given to student-run programs and initiatives that promote increased participation of women in computing and IT programs. NCWIT aims to engage and interest more undergraduate female students and to encourage their choice to major in computer science. Through NCWIT support, CISTers will conduct a pilot workshop. This will include a contest of educational videos on introductory computer science topics to enable freshman student teams to creatively design, role-play, and shoot short videos that explain abstract concepts in Computer Science by connecting them to real-life situations.

The project representative, Boyu Zhang, was invited to represent CISTers and UD at the NCWIT luncheon during the 2013 Grace Hopper Celebration!

NCWIT has a broad range of award opportunities. Please visit their website to find out more about their initiatives, learn how to submit your group's ideas, and make a difference for women in technology.

CISTers @ UD:

<http://www.eecis.udel.edu/~cisters>

NCWIT:

<http://www.ncwit.org/programs-campaigns/ncwit-awards>



## We Can STEM the Gender Gap

*By Karen Purcell, P.E. Founder, owner, and president, PK Electrical; author, 'Unlocking Your Brilliance: Smart Strategies for Women to Thrive in Science, Technology, Engineering, and Math'*

Why is there such a gender imbalance when it comes to the Science, Technology, Engineering and Math (or STEM) fields? What characterizes a career in math or in science that keeps them male-dominated even today, when women—at least on paper—share the same freedoms as men? What is it about, say, physics that attracts men and repels women? Is testosterone a required variable for understanding inertia or balancing the Schrödinger equation? Why are there so few women?

There is no easy way to explain why more women are not encouraged to follow STEM career paths. Some arguments assign blame to the media for fostering an image that scientists and mathematicians in our society are male. Other views place the blame on educators for directing men into those “manly” fields and women into traditionally acceptable “womanly” fields such as teaching and nursing, which supposedly fit a woman’s nurturing nature. Whatever the reasons, and no matter how complex they prove to be, they cannot be justified. There is no legitimate excuse for *anyone* not being encouraged to follow his or her passions in life because of gender.

Studies that have examined test scores for both sexes at a variety of ages suggest that academic performance is not the greatest obstacle for girls who want to study math, science, or engineering. The gender stereotypes instilled in girls’ minds at an early age are the real dream killers. By the time girls reach their teenage years, they have already formed opinions about which occupations are appropriate for their sex. Many young women decide to avoid science altogether without knowing its promise or the stimulating work it entails. That’s because they are rarely encouraged by their parents, teachers or peers to follow such a path and therefore are not exposed to it. While young males with average mechanical and mathematical abilities are likely to be encouraged to explore the STEM fields, it is only our young females with remarkable abilities who are thought to be prepared for the field.

As a society, we learn about the world and advance our well-being through science. The United States may be known around for its higher education, but there isn’t as strong a focus on educating scientists and engineers as there is in many other countries. One significant reason for our falling behind is that female students are not being encouraged, as they are abroad, to pursue career paths in science, technology, engineering, or math. If we want to attract the best and brightest minds to the fields that will move us forward in the 21<sup>st</sup> century, we can no longer look to only half of the population for solutions.

For this reason, it is important to confront gender stereotypes head-on, and long before young people are faced with declaring their majors at the college level. Without making efforts to break gender stereotypes, we face the consequence of limiting the potential of our youth, both female and male, and equally important, the innovation potential of our country, as documented here: <http://bit.ly/GKFrRZ>. If careers in all STEM fields were truly open to both sexes, future generations would be encouraged to pursue the careers that best matched their interests and skills.

There is another issue with the STEM gender imbalance. By maintaining certain fields as male-dominated, we are also allowing the culture within those fields to be established and maintained by men. Therefore, the males in math- and science-related institutions and workplaces will continue to foster cultures that only meet the needs of men. These male-oriented cultures are not inviting to women, and as a result, they deter young women from choosing fields in math and science even if they have exceptional abilities.

Throughout history, women have achieved tremendous accomplishments in the traditionally male-dominated STEM fields. Women worked on the Manhattan Project, contributed to our understanding of DNA, discovered radium, and helped design and build the Golden Gate Bridge, just to name a few accomplishments. In addition to mastering difficult subjects and techniques of experimentation, however, these women also...

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... had to overcome the obstacle of a bias against their participation in and restricted access to STEM disciplines. Although that hurdle is less overt today, biases and restrictions still prevent women from choosing STEM career paths in large numbers.

Overcoming the lack of exposure is one of the main obstacles standing in the way of creating more gender balance in the STEM fields. So, what can professionals do to help? Act as a mentor. Especially for women, teaming with a mentor is a career strategy that can bring huge benefits in male-dominated work environments like science. The majority of successful women time and time again credit their participation in some sort of mentorship program for dramatically helping them to reach their career goals.

Although not everybody is cut out to play a mentoring role, many professionals will take on the opportunity to be a mentor if shown appreciation for their efforts. Those that are being mentored must put in the extra work in order to demonstrate that the guidance of their mentor is leading to success in college as well as on-the-job results. While the feeling of making a difference will be a rewarding payoff for mentors both on a professional and personal level, professionals will inevitably want those being mentored to reach professional goals and milestones.

Mentors for young women can be men or women. Men should not be viewed as monsters or enemies in the STEM fields. Rather, we should see them as partners, colleagues, and confidants. Women are not trying to flip the situation and dominate the fields in which men currently rule; women are merely trying to work in tandem with them and in more equal numbers to help advance the fields. After all, science is about critical thinking and taking risks in order to unveil knowledge; it is about learning all we can. Leveling the playing field will help crush the social stigma that says careers in science, technology, engineering, and mathematics are for boys only.

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<http://www.huffingtonpost.com>

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